

09593173

=> d his

(FILE 'HOME' ENTERED AT 11:41:46 ON 07 MAR 2005)

FILE 'REGISTRY' ENTERED AT 11:41:57 ON 07 MAR 2005

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 0 S L1 SSS FULL
L4 STRUCTURE UPLOADED
L5 4 S L4
L6 40 S L4 SSS FULL

FILE 'CAPLUS' ENTERED AT 11:46:51 ON 07 MAR 2005

L7 10 S L6

FILE 'REGISTRY' ENTERED AT 11:51:44 ON 07 MAR 2005

FILE 'MARPAT' ENTERED AT 11:51:51 ON 07 MAR 2005

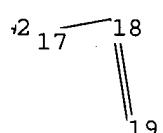
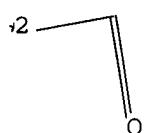
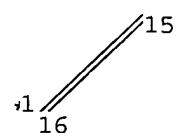
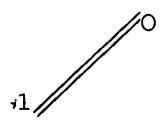
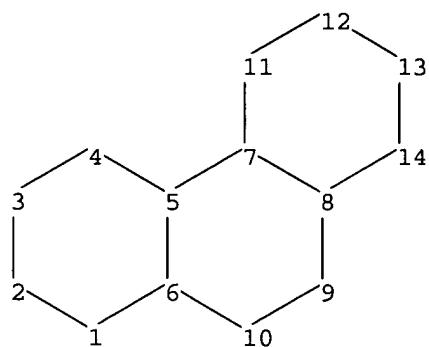
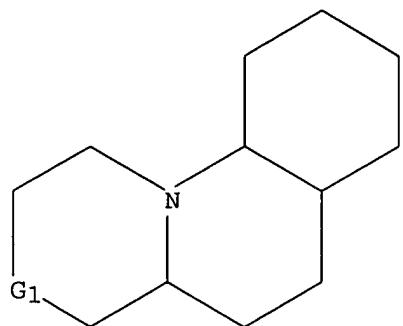
L8 0 S L6
L9 8 S L6 SSS FULL
L10 5 S L9/COMPLETE

FILE 'CAPLUS' ENTERED AT 11:53:49 ON 07 MAR 2005

L11 3 S L10 NOT L7
 E GUARNA A/IN
L12 6 S E4
L13 4 S L12 NOT L7

=>

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chain nodes :
15 16 17 18 19

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14

chain bonds :

15-16 17-18 18-19

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13
13-14

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 15-16 17-18
18-19

exact bonds :

11-12 12-13 13-14

isolated ring systems :

containing 1 :

G1:NO2, [*1], [*2]

Match level :

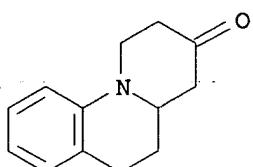
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1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS

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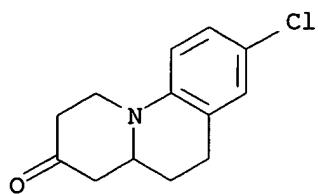
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L7 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:690879 CAPLUS
DN 141:360203
TI Benzo[c]quinolizin-3-ones Theoretical Investigation: SAR Analysis and Application to Nontested Compounds
AU Braga, S. F.; Galvao, D. S.
CS Instituto de Fisica Gleb Wataghin, Universidade Estadual de Campinas, Campinas, 13083-970, Brazil
SO Journal of Chemical Information and Computer Sciences (2004), 44(6), 1987-1997
CODEN: JCISD8; ISSN: 0095-2338
PB American Chemical Society
DT Journal
LA English
AB We investigate with the use of theor. methodologies the activity of a set of 47 benzo[c]quinolizin-3-ones (BC3), some of them explored as selective inhibitors of the human 5 α -reductase steroid. For the structure-activity study we have considered dividing the mols. into groups of tested and nontested compds. Semiempirical calcns. and pattern recognition methods such as Electronic Indexes Methodol. (EIM), Principal Components Anal. (PCA), Hierarchical Cluster Anal. (HCA), and K-Nearest Neighbors (KNN) have been applied to search for a correlation between exptl. activity and theor. descriptors. Our results show that it is possible to directly correlate some mol. quantum descriptors with BC3 biol. activity. This information can be used in principle to identify active/inactive untested compds. and/or to design new active compds.
IT 194979-79-8 194979-82-3 194979-83-4
307335-24-6 307335-25-7 307335-26-8
307335-27-9 307335-28-0 307335-30-4
307335-31-5 307335-32-6 307335-33-7
758719-96-9 758719-97-0 758719-98-1
758719-99-2 758720-00-2 758720-01-3
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(benzo[c]quinolizin-3-ones theor. investigation for SAR anal. and application to nontested compds.)
RN 194979-79-8 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



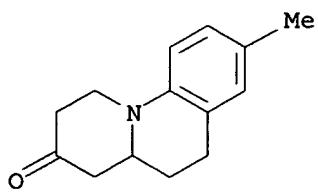
RN 194979-82-3 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)

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RN 194979-83-4 CAPLUS

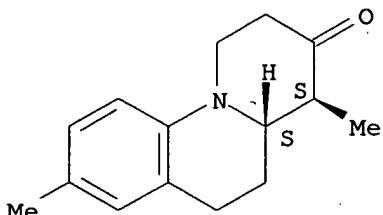
CN 3H-Benz[cl]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-8-methyl- (9CI) (CA INDEX NAME)



RN 307335-24-6 CAPLUS

CN 3H-Benz[cl]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4,8-dimethyl-, (4R,4aR)-rel- (9CI) (CA INDEX NAME)

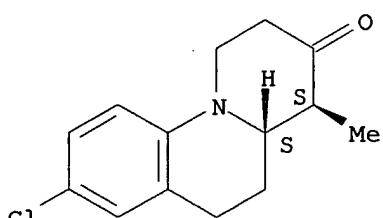
Relative stereochemistry.



RN 307335-25-7 CAPLUS

CN 3H-Benz[cl]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4-methyl-, (4R,4aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

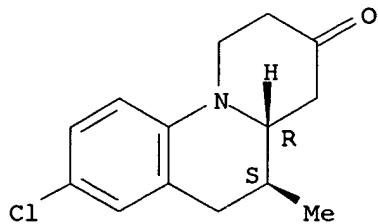


RN 307335-26-8 CAPLUS

09593173

CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-5-methyl-, (4aR,5S)-rel- (9CI) (CA INDEX NAME)

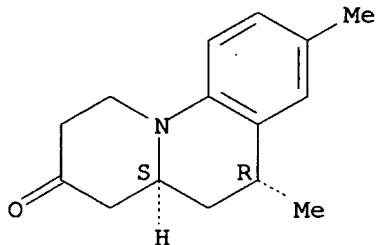
Relative stereochemistry.



RN 307335-27-9 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-6,8-dimethyl-, (4aR,6S)-rel- (9CI) (CA INDEX NAME)

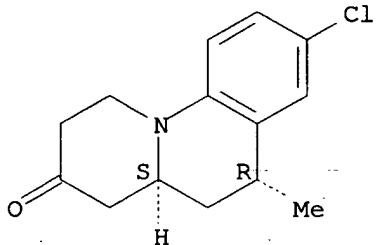
Relative stereochemistry.



RN 307335-28-0 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-6-methyl-, (4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

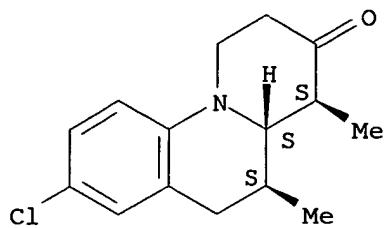


RN 307335-30-4 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,5-dimethyl-, (4R,4aR,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

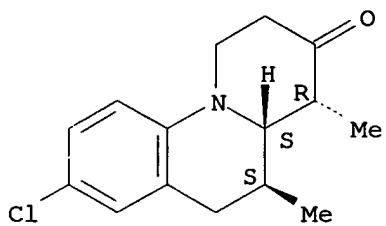
09593173



RN 307335-31-5 CAPLUS

CN 3H-Benzoc[3,2-c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,5-dimethyl-, (4R,4aS,5S)-rel- (9CI) (CA INDEX NAME)

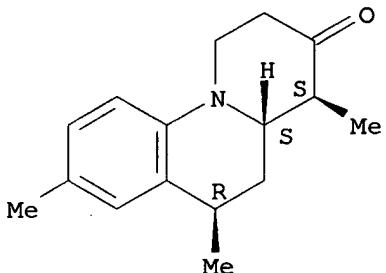
Relative stereochemistry.



RN 307335-32-6 CAPLUS

CN 3H-Benzoc[3,2-c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4,6,8-trimethyl-, (4R,4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

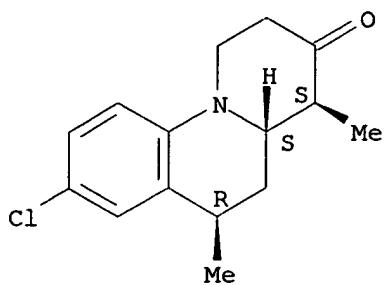


RN 307335-33-7 CAPLUS

CN 3H-Benzoc[3,2-c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,6-dimethyl-, (4R,4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

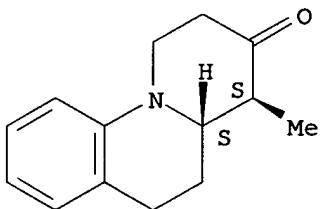
09593173



RN 758719-96-9 CAPLUS

CN 3H-Benz[3,2-c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl-,
(4R,4aR)-rel- (9CI) (CA INDEX NAME)

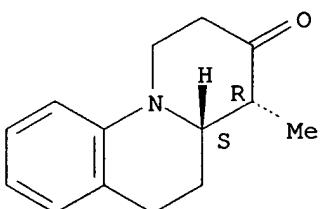
Relative stereochemistry.



RN 758719-97-0 CAPLUS

CN 3H-Benz[3,2-c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl-,
(4R,4aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

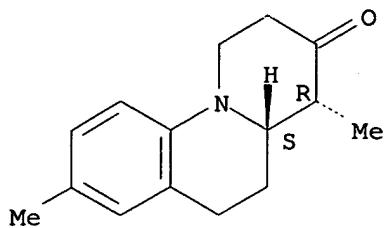


RN 758719-98-1 CAPLUS

CN 3H-Benz[3,2-c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4,8-dimethyl-,
(4R,4aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

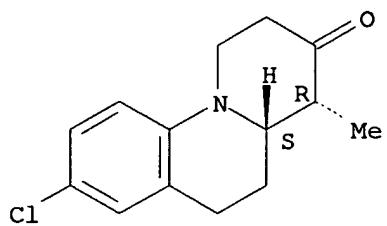
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RN 758719-99-2 CAPLUS

CN 3H-Benz[cd]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4-methyl-, (4R,4aS)-rel- (9CI) (CA INDEX NAME)

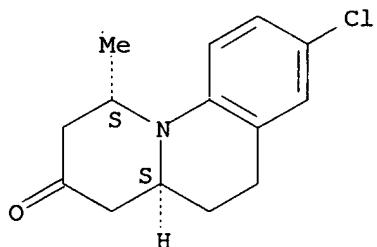
Relative stereochemistry.



RN 758720-00-2 CAPLUS

CN 3H-Benz[cd]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-1-methyl-, (1R,4aR)-rel- (9CI) (CA INDEX NAME)

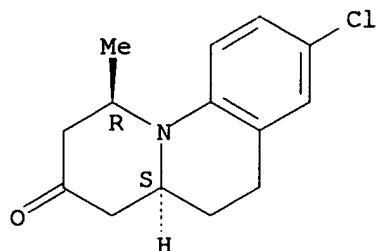
Relative stereochemistry.



RN 758720-01-3 CAPLUS

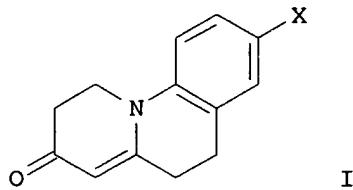
CN 3H-Benz[cd]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-1-methyl-, (1R,4aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:632698 CAPLUS
DN 133:362693
TI Benzo[c]quinolizin-3-ones: A Novel Class of Potent and Selective Nonsteroidal Inhibitors of Human Steroid 5 α -Reductase 1
AU Guarna, Antonio; Machetti, Fabrizio; Occhiato, Ernesto G.; Scarpi, Dina; Comerci, Alessandra; Danza, Giovanna; Mancina, Rosa; Serio, Mario; Hardy, Kimber
CS Dipartimento di Chimica Organica U. Schiff and Centro di Studio sulla Chimica e la Struttura dei Composti Eterociclici e loro Applicazioni, Universita di Firenze, Florence, I-50121, Italy
SO Journal of Medicinal Chemistry (2000), 43(20), 3718-3735
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
GI



AB The synthesis and biol. evaluation of a series of novel, selective inhibitors of isoenzyme 1 of human 5 α -reductase (5 α R) (EC 1.3.99.5) are reported. The inhibitors are 4aH- or 1H- tetrahydrobenzo[c]quinolizin-3-ones bearing at positions 1, 4, 5, or 6 a Me group and at position 8 a hydrogen, Me group, or chlorine atom. All these compds. were tested toward 5 α R-1 and 5 α R-2 expressed in CHO cells (CHO 1827 and CHO 1829, resp.) resulting in selective inhibitors of the type 1 isoenzyme, with inhibitory potencies (IC50) ranging from 7.6 to 9100 nM. The inhibitors of the 4aH-series, having a double bond at position 1,2, were generally less active than the corresponding inhibitors of the 1H-series having the double bond at position 4,4a on the A ring. The presence of a Me group at position 4, associated with a substituent at position 8, determined the highest inhibition potency (IC50 from 7.6 to 20 nM). The 1H-benzo[c]quinolizin-3-ones I [X = Me, Cl], having Ki values of 5.8 \pm 1.8 and 2.7 \pm 0.6 nM, resp., toward 5 α R-1 expressed in CHO

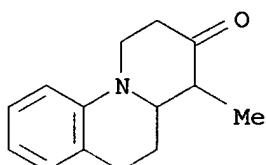
cells, were also tested toward native 5 α R-1 in human scalp and 5 α R-2 in human prostate homogenates, in comparison with finasteride and the known 5 α R-1-selective inhibitor LY191704, and their mechanism of inhibition was determined. They both inhibited the enzyme through a reversible competitive mechanism and again were selective inhibitors of 5 α R-1 with IC₅₀ values of 41 nM. These specific features make these inhibitors suitable candidates for further development as drugs in the treatment of DHT-dependent disorders such as acne and androgenic alopecia in men and hirsutism in women.

IT 5569-24-4P 194979-79-8P 194979-82-3P
 194979-83-4P 307335-24-6P 307335-25-7P
 307335-26-8P 307335-27-9P 307335-28-0P
 307335-29-1P 307335-30-4P 307335-31-5P
 307335-32-6P 307335-33-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of benzo[c]quinolizin-3-ones as potent and selective nonsteroidal inhibitors of human steroid 5 α -reductase 1)

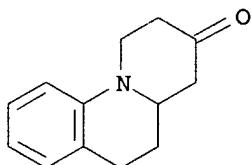
RN 5569-24-4 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (7CI, 8CI, 9CI) (CA INDEX NAME)



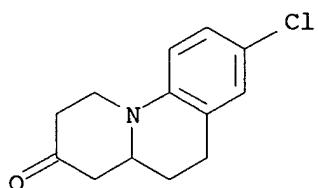
RN 194979-79-8 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



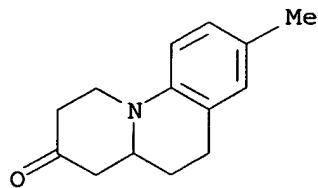
RN 194979-82-3 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



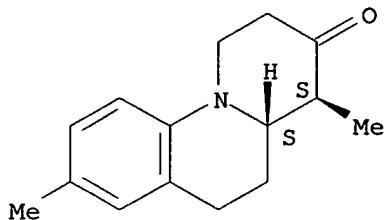
09593173

RN 194979-83-4 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-8-methyl- (9CI) (CA INDEX NAME)



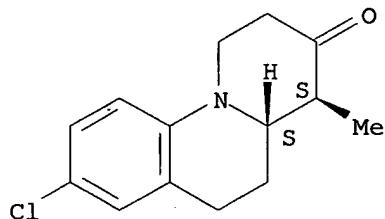
RN 307335-24-6 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4,8-dimethyl-, (4R,4aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 307335-25-7 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4-methyl-, (4R,4aR)-rel- (9CI) (CA INDEX NAME)

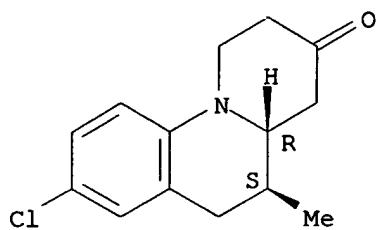
Relative stereochemistry.



RN 307335-26-8 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-5-methyl-, (4aR,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

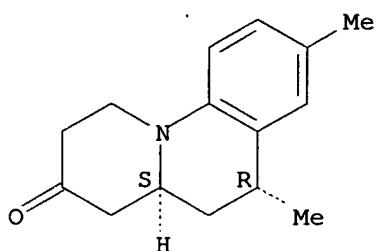
09593173



RN 307335-27-9 CAPLUS

CN 3H-Benzoc[cl]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-6,8-dimethyl-, (4aR,6S)-rel- (9CI) (CA INDEX NAME)

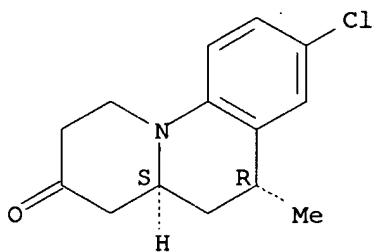
Relative stereochemistry.



RN 307335-28-0 CAPLUS

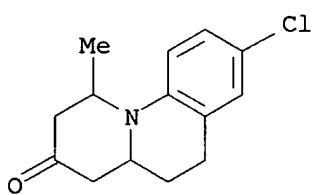
CN 3H-Benzoc[cl]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-6-methyl-, (4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 307335-29-1 CAPLUS

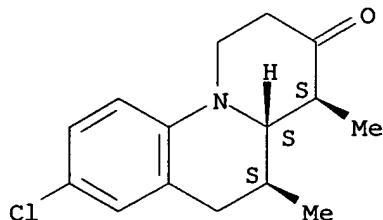
CN 3H-Benzoc[cl]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-1-methyl-, (9CI) (CA INDEX NAME)



09593173

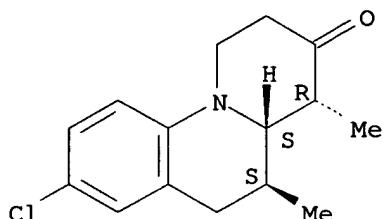
RN 307335-30-4 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,5-dimethyl-, (4R,4aR,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



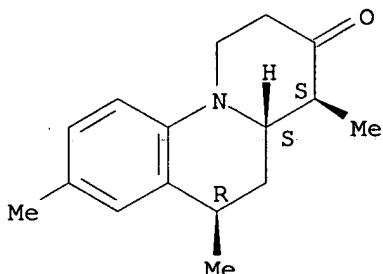
RN 307335-31-5 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,5-dimethyl-, (4R,4aS,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



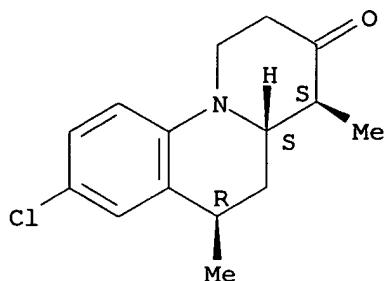
RN 307335-32-6 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4,6,8-trimethyl-, (4R,4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 307335-33-7 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-4,6-dimethyl-, (4R,4aR,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

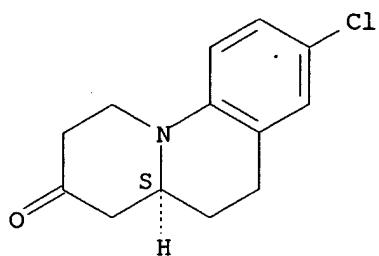


RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:177171 CAPLUS
 DN 132:317634
 TI Synthesis of 8-chloro-benzo[c]quinolizin-3-ones as potent and selective inhibitors of human steroid 5 α -reductase 1
 AU Guarna, Antonio; Occhiato, Ernesto G.; Scarpi, Dina; Zorn, Chiara; Danza, Giovanna; Comerci, Alessandra; Mancina, Rosa; Serio, Mario
 CS Dipartimento di Chimica Organica "U. Schiff" and Centro di Studio sulla Chimica e la Struttura dei Composti Eterociclici e loro Applicazioni, CNR, Universita di Firenze, Florence, I-50121, Italy
 SO Bioorganic & Medicinal Chemistry Letters (2000), 10(4), 353-356
 CODEN: BMCLE8; ISSN: 0960-894X
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The synthesis of a series of differently substituted 8-chloro-benzo[c]quinolizin-3-ones, as potent and selective human steroid 5 α -reductase type 1 inhibitors, has been accomplished by a four-step procedure based on the TiCl₄-promoted tandem Mannich-Michael cyclization of 2-silyloxy-1,3-butadienes with N-t-Boc iminium ions from quinolin-2-ones. The presence on the benzo[c]quinolizinone nucleus of a Me group and a double bond at positions 6 and 4-4a, resp., gave rise to one of the most potent non-steroidal steroid 5 α -reductase-1 inhibitors reported so far (IC₅₀ = 14 nM).
 IT 267226-10-8P 267226-11-9P 267226-12-0P
 267226-15-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of chlorobenzoc[cd]quinolizinones as potent and selective inhibitors of human steroid 5 α -reductase 1)
 RN 267226-10-8 CAPLUS
 CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-, (4aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

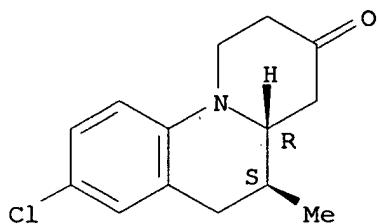
09593173



RN 267226-11-9 CAPLUS

CN 3H-Benzoc[3,4-d]thiopyran-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-5-methyl-, (4aR,5S)- (9CI) (CA INDEX NAME)

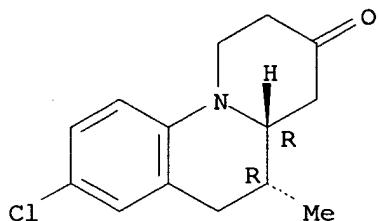
Absolute stereochemistry.



RN 267226-12-0 CAPLUS

CN 3H-Benzoc[3,4-d]thiopyran-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-5-methyl-, (4aR,5R)- (9CI) (CA INDEX NAME)

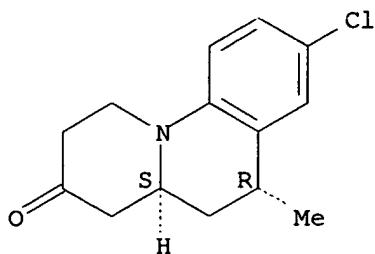
Absolute stereochemistry.



RN 267226-15-3 CAPLUS

CN 3H-Benzoc[3,4-d]thiopyran-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-6-methyl-, (4aS,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



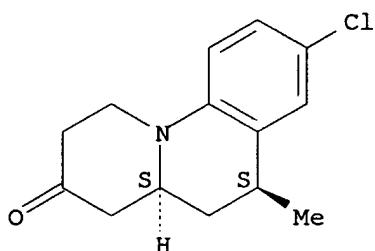
IT 267226-16-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of chlorobenzodihydrothiopyranones as potent and selective inhibitors of human steroid 5 α -reductase 1)

RN 267226-16-4 CAPLUS

CN 3H-Benzodihydrothiopyran-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro-6-methyl-, (4aS,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:113517 CAPLUS

DN 130:178758

TI Use of benzo[c]quinolizine derivatives as plant growth regulators

IN Guarna, Antonio; Serio, Mario

PA Applied Research Systems ARS Holding N.V., Neth. Antilles

SO PCT Int. Appl., 14 pp.

CODEN: PIXXD2

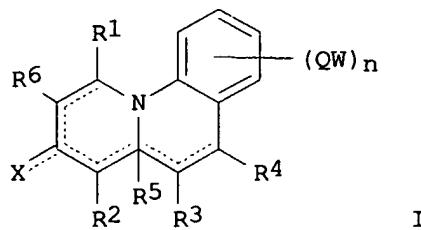
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9905913	A1	19990211	WO 1998-EP4737	19980729
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,				

	CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2299465	AA	19990211	CA 1998-2299465	19980729
AU 9891570	A1	19990222	AU 1998-91570	19980729
AU 750092	B2	20020711		
EP 999747	A1	20000517	EP 1998-943798	19980729
EP 999747	B1	20030423		
R: AT, BE, CH, DE, DK, ES, FR, IE, FI	GB, GR, IT, LI, LU, NL, SE, MC, PT,			
JP 2001511433	T2	20010814	JP 2000-504746	19980729
AT 237938	E	20030515	AT 1998-943798	19980729
PT 999747	T	20030829	PT 1998-943798	19980729
ES 2192332	T3	20031001	ES 1998-943798	19980729
US 6514912	B1	20030204	US 2000-480238	20000110
PRAI IT 1997-FI193	A	19970801		
WO 1998-EP4737	W	19980729		
OS MARPAT 130:178758				
GI				



AB The benzo[c]quinolizine derivs. I (R1-4, R6 = H, alkyl, alkenyl, alkynyl, aryl, heterocyclyl, etc.; R5 = H, alkyl, arylalkyl, CO₂H, etc.; Q = bond, alkyl, alkenyl, alkynyl, CO, etc.; W = H, alkyl, alkenyl, aryl, etc.; n = 1-4; a, b, c, d, e, f and g are single or double bonds) are plant growth regulators.

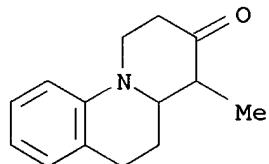
IT 5569-24-4 194979-79-8 194979-82-3

194979-83-4 194979-84-5

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(plant growth regulator)

RN 5569-24-4 CAPLUS

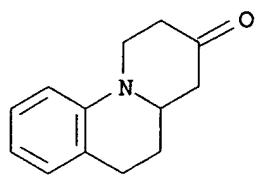
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



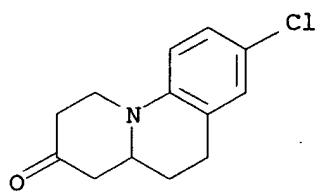
RN 194979-79-8 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX
NAME)

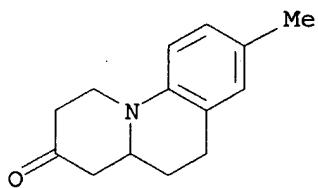
09593173



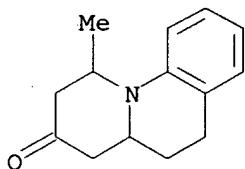
RN 194979-82-3 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



RN 194979-83-4 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-8-methyl- (9CI) (CA INDEX NAME)



RN 194979-84-5 CAPLUS
CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-1-methyl- (9CI) (CA INDEX NAME)

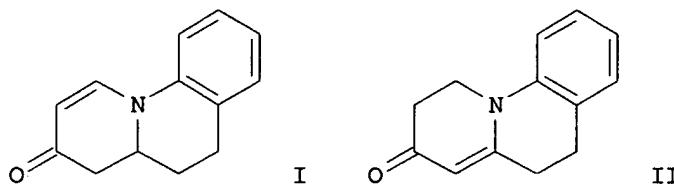


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:713257 CAPLUS
DN 130:52313

09593173

TI Synthesis of benzo[c]quinolizin-3-ones: selective non-steroidal inhibitors of steroid 5 α -reductase 1
AU Guarna, Antonio; Occhiato, Ernesto G.; Scarpi, Dina; Tsai, Ruey; Danza, Giovanna; Comerci, Alessandra; Mancina, Rosa; Serio, Mario
CS Dipartimento di Chimica Organica "U. Schiff", Centro di Studio sulla Chimica e la Struttura dei Composti Eterociclici e lori Applicazioni, CNR, Univ. di Firenze, Florence, I-50121, Italy
SO Bioorganic & Medicinal Chemistry Letters (1998), 8(20), 2871-2876
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
GI

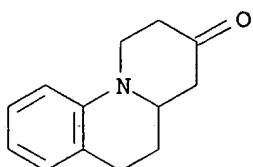


AB A short and efficient synthesis of novel benzo[c]quinolizin-3-ones I and II is described. The synthesis is based on the tandem Mannich-Michael cyclization between 2-(silyloxy)-1,3-butadienes and a N-t-Boc iminium ion. I and II are selective inhibitors of human steroid 5 α -reductase isoenzyme 1, and thus have potential application as drugs for treatment of male pattern baldness and other DHT-dependent skin disorders.

IT 194979-79-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(benzo[c]quinolizin-3-ones as selective inhibitors of steroid 5 α -reductase 1)

RN 194979-79-8 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:542448 CAPLUS
DN 127:220585
TI Benzo[c]quinolizine derivatives, their preparation and use as 5 α -reductases inhibitors
IN Guarna, Antonio; Serio, Mario

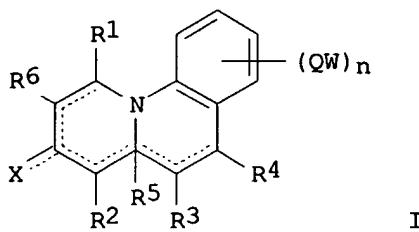
09593173

PA Applied Research Systems ARS Holding N.V., Neth. Antilles; Guarna,
 Antonio; Serio, Mario
 SO PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9729107	A1	19970814	WO 1997-EP552	19970207
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2245758	AA	19970814	CA 1997-2245758	19970207
	AU 9717672	A1	19970828	AU 1997-17672	19970207
	AU 711886	B2	19991021		
	EP 880520	A1	19981202	EP 1997-903230	19970207
	EP 880520	B1	20030416		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EE 9800233	A	19981215	EE 1998-233	19970207
	EE 4058	B1	20030616		
	CN 1210536	A	19990310	CN 1997-192097	19970207
	CN 1116296	B	20030730		
	JP 20000504680	T2	20000418	JP 1997-528158	19970207
	SK 283299	B6	20030502	SK 1998-1044	19970207
	AT 237614	E	20030515	AT 1997-903230	19970207
	PT 880520	T	20030731	PT 1997-903230	19970207
	ES 2192263	T3	20031001	ES 1997-903230	19970207
	PL 187618	B1	20040831	PL 1997-328123	19970207
	EP 926148	A1	19990630	EP 1997-122733	19971223
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 9803444	A	19980724	NO 1998-3444	19980724
	US 6303622	B1	20011016	US 1998-117583	19980729
	CA 2315055	AA	19990708	CA 1998-2315055	19981221
	WO 91933828	A1	19990708	WO 1998-EP8582	19981221
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9924194	A1	19990719	AU 1999-24194	19981221
	AU 744105	B2	20020214		
	BR 9813836	A	20001010	BR 1998-13836	19981221
	EP 1066284	A1	20010110	EP 1998-966711	19981221
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EE 200000387	A	20011217	EE 2000-200000387	19981221
	JP 2001527074	T2	20011225	JP 2000-526509	19981221
	ZA 9811762	A	19990623	ZA 1998-11762	19981222

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HK 1018783	A1	20031128	HK 1999-103821	19990903
NO 2000003199	A	20000823	NO 2000-3199	20000620
HK 1033128	A1	20040930	HK 2001-103695	20010529
US 2001044542	A1	20011122	US 2001-888952	20010625
US 6555549	B2	20030429		
US 2001047098	A1	20011129	US 2001-891088	20010625
US 6552034	B2	20030422		
PRAI IT 1996-FI19	A	19960209		
WO 1997-EP552	W	19970207		
EP 1997-122733	A	19971223		
US 1998-117583	A1	19980729		
WO 1998-EP8582	W	19981221		
OS MARPAT 127:220585				
GI				



AB The benzo[c]quinolizine derivs. I (R1-R4, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heterocycle, halo, amino azide, alkoxy carbonyl, etc.; R5 = H, alkyl, alkoxy carbonyl, cyano, aryl, heterocycle; X = O, acyl, alkoxy carbonyl, NO₂, carbamoyl; Q = bond, alkyl, alkenyl, alkynyl, amino, etc., W = H, alkyl, alkenyl, alkynyl, aryl, aryloxy, amino, halo, etc.) were prepared as 5 α -reductases inhibitors (no data). Thus, N-(tert-butoxycarbonyl)-2-ethoxy-1,2,3,4-tetrahydroquinoline was cyclized with 2-(trimethylsilyloxy)-1,3-butadiene to give 1,2,4,4a,5,6-hexahydro-(11H)-benzo[c]quinolizin-3-one.

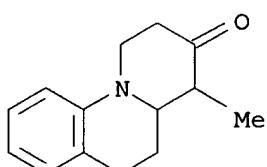
IT 5569-24-4P 194979-79-8P 194979-82-3P

194979-83-4P 194979-84-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of benzo[c]quinolizine derivs. as 5 α -reductases inhibitors)

RN 5569-24-4 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

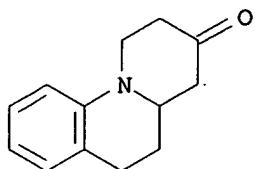


RN 194979-79-8 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX)

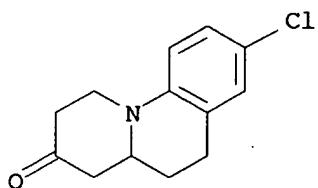
09593173

NAME)



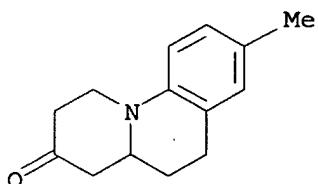
RN 194979-82-3 CAPLUS

CN 3H-Benzoc[*c*]quinolizin-3-one, 8-chloro-1,2,4,4a,5,6-hexahydro- (9CI) (CA INDEX NAME)



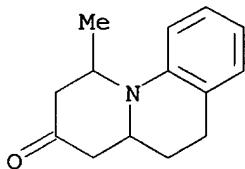
RN 194979-83-4 CAPLUS

CN 3H-Benzoc[*c*]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-8-methyl- (9CI) (CA INDEX NAME)



RN 194979-84-5 CAPLUS

CN 3H-Benzoc[*c*]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-1-methyl- (9CI) (CA INDEX NAME)



L7 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1966:84768 CAPLUS

DN 64:84768

OREF 64:15941e-h,15942c

TI Preparation and chemistry of 10 α -estra-4-en-3-ones

AU Farkas, Eugene; Owen, John M.; Debono, M.; Molloy, R. M.; Marsh, Max M.

CS Eli Lilly & Co., Indianapolis, IN

SO Tetrahedron Letters (1966), (10), 1023-7

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

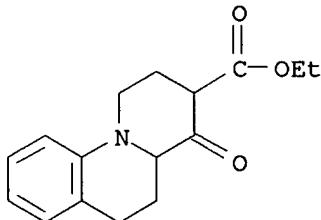
OS CASREACT 64:84768

AB cf. CA 54, 21197b. The substituted estra-4,8(10)-dien-3-ones (I, R = H, Me) in alc. hydrogenated with one equivalent H on Pd-BaSO₄ or Pd-Al₂O₃ gave small amts. of the appropriately substituted 5 α ,10 α -estrane (II, R = H, Me) (III, IV) and 20-30% yield of the corresponding 4-en-3-ones (V, R = H, Me) (VI, VII). In general, higher yields (60-80%) of V were obtained by use of 2% Pd-SrCO₃ in C₆H₆ though these alternative conditions were not applicable in some redns. owing to solubility differences. VI, m. 172-3°, λ 245 μ (ϵ 15,800), showed an optical rotatory dispersion (O.R.D.) curve almost identical with that of the corrected curve for 10 α -testosterone. The π - π^* portion of the curve indicating the chirality of the chromophore showed a neg. Cotton effect, best accommodated by assumption of half-chair and boat formations for the A and B rings and with cis diaxial 2 α ,10 α protons. The upfield shift of the 18-Me protons at 42 cycles/sec. (cps.) as compared to 50 cps. in the N.M.R. spectrum of 19-nortestosterone (VIII) confirmed the boat conformation of the B ring. VI was readily isomerized to VIII by HCl in CHCl₃ or with aqueous KOBu. Further confirmation of the structure of VI was obtained by the catalytic hydrogenation of the remaining double bond to give the known III. VI was acetylated in Ac₂O-C₅H₅N to the acetate, m. 143-4°, and oxidation of VI in C₅H₅N gave high yields of 10 α -estra-4-ene-3,17-dione, m. 162-4°. Metal-ammonia reduction of VI yielded 20% 5 α ,10 α -estrane-3-on-17 β -ol, together with a 60% yield of the 5 β ,9 α ,10 α -estrane (IX), m. 121-2°. IX exhibited on O.R.D. curve with neg. Cotton effect $[\phi]$ - 1022° (λ 314 μ , in agreement with octant rule predictions. Hydrogenation of I (R = Me) gave VII, m. 193-5°, λ 243 μ (ϵ 16,400) together with IV as a by-product. The O.R.D. and N.M.R. spectra of VII showed the salient features of I (R = H). VI showed no androgenic activity but maintained a high pituitary agonadotrophin inhibitory activity. A weak uterotrophic response was also noted.

IT 4527-67-7, 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-, ethyl ester, hydrochloride (preparation of)

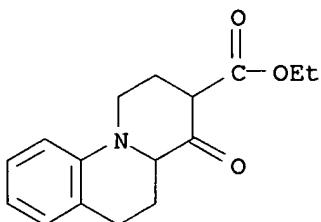
RN 4527-67-7 CAPLUS

CN 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-, ethyl ester, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

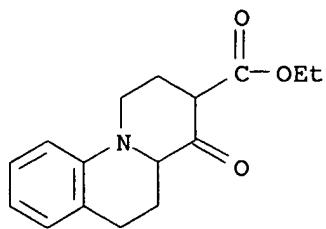
L7 ANSWER 8 OF 10 CAPIUS COPYRIGHT 2005 ACS on STN
 AN 1966:84767 CAPLUS
 DN 64:84767
 OREF 64:15941e
 TI Azasteroids. III. Approaches to 9-azasteroids
 AU Schleigh, W. R.; Popp, F. D.
 CS Clarkson Coll. of Technol., Potsdam, NY
 SO Journal of the Chemical Society [Section] C: Organic (1966), (8), 760-2
 CODEN: JSOOAX; ISSN: 0022-4952
 DT Journal
 LA English
 OS CASREACT 64:84767
 AB cf. CA 64, 5161d. Some unsuccessful approaches to 9-azasteroids are described. 3-Deoxy-18-nor-9,15,16-triaza-814(15)-estrone has been prepared
 IT 4527-67-7, 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-, ethyl ester, hydrochloride
 (preparation of)
 RN 4527-67-7 CAPLUS
 CN 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-, ethyl ester, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

L7 ANSWER 9 OF 10 CAPIUS COPYRIGHT 2005 ACS on STN
 AN 1966:84766 CAPLUS
 DN 64:84766
 OREF 64:15941d-e
 TI Viridin. V. Structure
 AU Grove, J. F.; McCloskey, P.; Moffatt, J. S.
 CS Imp. Chem. Ind. Ltd., Welwyn, UK
 SO Journal of the Chemical Society [Section] C: Organic (1966), (8), 743-7
 CODEN: JSOOAX; ISSN: 0022-4952
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB cf. preceding abstract The structure of viridin (I), C₂₀H₁₆O₆, an antifungal metabolic product of *Gliocladium virens*, is elucidated.
 IT 4527-67-7, 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-, ethyl ester, hydrochloride
 (preparation of)
 RN 4527-67-7 CAPLUS
 CN 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-oxo-,

ethyl ester, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

L7 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1966:35773 CAPLUS
 DN 64:35773
 OREF 64:6613b-h,6614a-h,6615a-h,6616a-b
 TI Synthesis of 9-azasteroids. II. Synthesis of β -cyano- and β -carbethoxy-3-and 4-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizines
 AU Jones, G.; Wood, J.
 CS Univ. Keele, UK
 SO Tetrahedron (1965), 21(10), 2961-71
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 OS CASREACT 64:35773
 GI For diagram(s), see printed CA Issue.
 AB cf. CA 64, 2048c. The synthesis of 3- and 4-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizines with reactive ester or nitrile groups situated so as to allow addition of a 4th ring (ring D of the final 9-azasteroid) was reported. The previously prepared oxo ester (I, 12.4 g.) in 100 ml. dry PhMe treated portionwise with 1.3 g. NaH (50% paraffin mull) and the mixture refluxed 1 hr. with stirring, the cooled solution treated with 9.63 g. MeI in 25 ml. PhMe and the stirred solution slowly heated in 1 hr. to boiling, refluxed 2 hrs. and the cooled mixture diluted with 100 ml. dry Et₂O, the filtered solution evaporated and the brown oil (5.5 g.) separated on Al₂O₃ gave the alkylation product (II), b₀.0002 125-30°, and its stereoisomer, b₀.0002 140-5°. Alternative routes to the non-enolizable oxo ester (III) were investigated. EtOCH₂CH₂OH (300 g.) and 350 g. PBr₃ mixed slowly below 80° and stirred 1 hr. poured into 500 ml. ice-H₂O and the washed and dried bromide distilled at 50 mm. gave 285 g. EtOCH₂CH₂Br. K (40.4 g.) in 800 ml. dry Me₃COH stirred 30 min. at 50° with 150 g. MeCH(CO₂Et)₂ and the mixture refluxed 2 hrs. with stirring with 178 g. EtOCH₂CH₂Br, the solvent evaporated and the residue treated at 0° with 400 ml. ice-H₂O and Et₂O yielded 161 g. EtOCH₂CH₂CMe(CO₂Et)₂ (IV), b₁₀ 130-2°. The ester (26 g.) in 200 ml. absolute alc. saturated with HBr and kept 16 hrs., refluxed 2 hrs. and evaporated in vacuo, the residual mixture poured into 50 ml. ice-H₂O and the aqueous layer basified with NaHCO₃, extracted with Et₂O and the dried extract distilled yielded 74% substantially pure BrCH₂CH₂CMe(CO₂Et)₂ (V), b₁₁ 138-40°. IV (102 g.) in 600 ml. 33% HBr boiled 6 hrs. with periodic distillation of EtBr,

and removal of HBr in vacuo, HBr distilled in vacuo and the distillate neutralized, saturated with NaCl and extracted with Et₂O, the extracted lactone and

the carboxylactone distillation residue combined, heated 1 hr. at 200° and distilled yielded 73% 2-methyl-4-butyrolactone (VI), b₁₁ 81°. VI (32 g.) in 80 ml. absolute alc. saturated with HBr at 0° and the mixture kept 24 hrs. at 20°, resatd. with HBr and kept 12 hrs. before pouring onto 120 g. ice, the ester layer and Et₂O washings of the aqueous layer combined and the washed and dried solution distilled gave material, b_{1.0} 45-50°, contaminated with 10% VI. Further washing with H₂O and distillation gave pure BrCH₂CH₂CHMeCO₂Et (VII), b_{1.0} 47°. VII (49 g.), 24 g. Et 1,2,3,4-tetrahydroquinaldinate, 32.3 g. anhydrous K₂CO₃, and 1 g. KI heated 6 hrs. at 160-70° with vigorous stirring and the cooled mixture treated with cold H₂O and CHCl₃, the CHCl₃ layer dried and distilled at 10 mm. to give 12.1 g. VI and the pressure reduced gave 8.9 g. fraction, b_{0.18} 104-40°. Further distillation at 0.0006 mm. yielded 61% material, b_{0.0006} 140-60°, redistd. to give pure Et N-(3-ethoxycarbonylbutyl)-1,2,3,4-tetrahydroquinaldinate (VIII), b_{0.0006} 154-6°. VIII (11.5 g.), 21.5 g. V, and 10.6 g. anhydrous K₂CO₃ heated 7 hrs. at 160° with stirring and the product fractionally distilled gave mainly VIII, 2-ethoxycarbonyl-2-methyl-4-butyrolactone, and 8% required Et N-[3,3-bis(ethoxycarbonyl)butyl]-1,2,3,4-tetrahydroquinaldinate, b_{0.0006} 150°. VIII (8.65 g.) in 60 ml. dry xylene added in 30 min. to KOBu-tert (from 1.09 g. K) in 50 ml. refluxing xylene with distillation of evolved BuOH, the cooled mixture diluted with 300 ml. dry Et₂O and the hygroscopic K salt (6.0 g.) converted to the unstable base gave the acyloin (IX), HCl salt, m. 96-7°. Since the major difficulty in alkylating the cyclic ester I appeared to be competitive N-alkylation the basicity of the N was deactivated by nitration in the para-position using N₂O₄ in CC₁₄ according to Schaarschmidt et al. (CA 19, 2036). Et N-(3-ethoxycarbonylpropyl)-1,2,3,4-tetrahydroquinaldinate (X, R = H, 5.0 g.) in 50 ml. dry CC₁₄ at -5° stirred vigorously with 1.6 g. powdered CaCO₃ with addition of 1.45 g. N₂O₄ in 20 ml. CC₁₄ and the mixture stirred 3 hrs. at -5°, warmed slowly and filtered at 20°, washed with 100 ml. cold 3N HCl, saturated aqueous NaHCO₃, and H₂O and the dried solution evaporated

yielded 83% brown oil. A sample distilled in a bulb tube gave X (R = NO₂) (XI), b_{0.001} 200-10°. I (4.77 g.) in 100 ml. CC₁₄ at -5° stirred 30 min. with addition of 1.69 g. N₂O₄ in 40 ml. ice-cold CC₁₄ and the mixture stirred 3 hrs., the solution decanted at 20° and the decantation and CC₁₄ washings evaporated yielded 24% solid. Recrystn. of a sample gave the nitro oxoester (XII, R = H) (XIII), m. 126-9°. XIII (1.35 g.) in 30 ml. PhMe added slowly to 50 ml. refluxing PhMe containing of KOBu-tert (from 0.18 K) and the mixture refluxed 30 min., the cooled mixture treated with 1.2 g. MeI in 20 ml. PhMe and the mixture slowly heated and refluxed 3 hrs., cooled and the filtered solution evaporated gave an unstable gum, corresponding to the expected methylated compound XII (R = Me). XI (0.66 g.) in 100 ml. alc. hydrogenated over 0.1 g. prereduced PtO₂ with adsorption of 3 molar equivs. H gave 0.61 g. brown oil, distilled to give the amino diester X (R = NH₂), b_{0.0003} 185-95°. The previously synthesized cyano ester (XIV, 8.16 g.) in 75 ml. xylene added in 1 hr. with stirring to 2.25 g. NaOEt in 75 ml. boiling xylene with slow distillation, the stirred mixture refluxed 1 hr. and distilled to vapor temperature 138°, the ice-cold suspension diluted with 100 ml. each of Et₂O and H₂O and the organic layer extracted with 100 ml. N aqueous NaOH, the combined aqueous layers adjusted

with 5N HCl at 0° to pH 6 and extracted with CHCl₃, the residue on evaporation (6.41 g. brown gum) purified by regeneration from the HCl salt and a sample distilled gave 3-cyano-4-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizine, b_{0.003} 180°; HCl salt, m. 163°

(decomposition). Nitration of the cyano ketone gave an extremely insol. brown solid which has not been characterized. The major difficulty in synthesis of 4-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizine derivs. appeared to be inherent instability of systems which are formally analogous to 3-oxo-N-phenylpiperidine and synthesis of the probably more stable 3-oxo derivs. was undertaken. Attempts to synthesize the potentially useful intermediate tricyclic oxo ester (XV, R = H) (XVI) were undertaken. The initial approach was that of cyclization of the diester, Et 1-(2-ethoxycarbonylethyl)-1,2,3,4-tetrahydro-2-quinolyl acetate (XVII). Absolute alc. (300 ml.) and 4 ml. H₂O containing 29.4 g. 2-quinolylacetonitrile (from 2-chloromethylquinoline HCl salt) saturated with HCl at 60° and boiled 3 hrs., the chilled mixture filtered and the residue on evaporation in vacuo treated with ice-cold saturated aqueous NaHCO₃, extracted with Et₂O and

the

product distilled yielded 76% Et 2-quinolylacetate, b0.5 136-7°. The acetate (36.65 g.) in 250 ml. AcOH hydrogenated over prereduced PtO₂ with 2 moles H and the residue on evaporation treated with aqueous NaHCO₃ and Et₂O,

the

Et₂O layer dried and distilled yielded 92% Et 1,2,3,4-tetrahydro-2-quinolylacetate (XVIII), b0.6 130-8°; 1-benzoyl derivative, m. 96.5-7.0° (ligroine). XVIII (10 g.), 16.42 g. BrCH₂CH₂CO₂Et (b2.5 44°), 9.5 g. finely ground K₂CO₃, and 0.38 g. KI heated 4 hrs. at 140° under a short air condenser and the cooled mixture treated with H₂O and Et₂O, the Et₂O layer and washings dried and evaporated, the residual oil distilled at 12 mm. to give 4 g. BrCH₂-CH₂CO₂Et and at 0.003 mm. gave 1.7 g. XVIII and 63% yield of XVII, b0.003 145-60°, redistd. to give a sample, b0.003 161°. XVII (12.0 g.) cyclized with EtONa (from 0.95 g. Na in 200 ml. xylene) and the chilled (0°) mixture treated with 100 ml. H₂O, the aqueous layer adjusted to pH 6.5 and diluted with Et₂O, the organic layer and subsequent Et₂O exts. combined and evaporated gave 93%

viscous

orange oil, purified by regeneration from the HCl salt to give the alternative quinazoline (XIX, R = H) (XX); HCl salt, m. 130° (Me₂CO-Et₂O-HCl). The cyclized Na salt suspension from 6.0 g. XVII treated at 0° with 3.06 g. MeI in 25 ml. xylene, stirred 1 hr. at 20 and 8 hrs. at 60°, the cooled mixture filtered and the filtrate and Et₂O washings evaporated, the light-brown oily mixture (3.86 g.) chromatographed on neutral Al₂O₃ from ligroine-C₆H₆ gave XV (R = Me) (XXI), b0.0004 130-4°, and the major isomer (XIX, R = Me) (XXII), b4 150-5°. The light brown oil (2 g., prepared as above) boiled 6 hrs. in 5N HCl and evaporated, the residue treated with aqueous NaHCO₃ and the free base extracted with Et₂O yielded 73% 2-methyl-3-oxo-1,2,3,4,-5,6-hexahydrobenzo[c]quinolizine (XXIII), b0.003 130-40°. After equilibration with alc. EtONa the redistd. XXIII showed only the doublet at 0.99 ppm. Further confirmation that XXIII was a mixture of epimers and not of structural isomers was obtained by hydrolyzing and decarboxylating 0.223 g. of the pure major isomer XXII to give 88% XXIII, practically identical with that obtained from the mixture of oxo esters XXII. The equilibrated ketone XXIII heated 15 min. at 100° with a molar equivalent of 2,4-(O₂N)C₆H₃NHNH₂ in absolute alc./HBr and the cooled mixture filtered, the salt taken up in CHCl₃ and shaken vigorously with aqueous Na₂CO₃ and H₂O, dried and evaporated gave XXIII dinitrophenylhydrazone, m. 195-8°. To identify the ketone and hence to deduce the direction of the Dieckmann cyclization in the di-ester XVII, attempts were made to synthesize XXIII or its isomer 4-methyl-3-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizine (XXIV), but attempts to alkylate XVIII with Me₂CBrCO₂Et were unsuccessful in the production of XXIII. Quinaldyllithium (from 252 g. quinaldine) in Et₂O added to 268 g. MeI under gentle reflux and the mixture refluxed 1 hr., kept 16 hrs. at 20° and treated with 1300 ml. 5N HCl, the acid layer separated and the

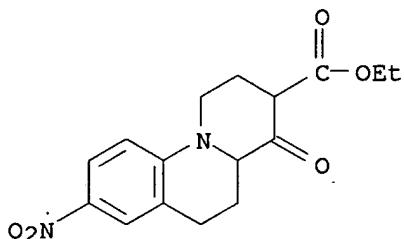
Et₂O layer extracted with acid, the combined acid layers basified with NH₄OH (d. 0.880) and the bases extracted with Et₂O gave 47 g. quinaldine and 57% yield of 2-ethylquinoline, b₁₄ 134-5°. A filtered solution of PhLi (from 90 g. PhBr) added slowly with stirring to 75 g. 2-ethylquinoline in 100 ml. Et₂O and the mixture refluxed 1 hr., the filtered 2-ethylquinolyl lithium added in 1 hr. with stirring to 34 g. Et₂CO₃ in 100 ml. Et₂O and the mixture boiled 3 hrs., the cooled solution treated with 500 ml. ice-cold 5N HCl, the acid layer and acid exts. neutralized with NH₄OH and extracted with Et₂O, evaporated and the residue distilled gave 29 g. 2-ethylquinoline b₀.05 60-85°, and 15% yield of Et 2-(2-quinolyl)propionate (XXV), b₀.05 116°; picrate, m. 137-40° (alc.). XXV (15.8 g.) in 150 ml. AcOH hydrogenated over 0.3 g. prereduced PtO₂ with 2 moles H, the filtered solution evaporated and the residue shaken with aqueous NaHCO₃ and Et₂O, the Et₂O extract dried and distilled gave 85% tetrahydro ester (XXVI) (R = H, R' = CHMeCO₂Et) (XXVII), b₀.7 134-8°. XXVII (13.9 g.), 21.5 g. BrCH₂CH₂CO₂Et, 12.4 g. K₂CO₃, and 0.5 g. KI vigorously stirred 6 hrs. at 150° and the cooled product worked up as for XVII gave mainly 8.18 g. XXVII, b₀.002 90-120°, and a 73% yield of the diester XXVI (R = CH₂CH₂CO₂Et, R' = CHMeCO₂Et) (XXVIII), b₀.002 148-54°. XXVIII (6.48 g.) in 50 ml. xylene added slowly to KOCMe₃ (from 0.836 g. K) in 75 ml. boiling xylene with slow distillation continued 1 hr., the cooled mixture treated with 100 ml. ice-H₂O and acidified to pH 6, extracted with Et₂O and the residue on evaporation gave 2-ethoxycarbonyl-4-methyl-3-oxo-1,2,3,4,5,6-hexahydrobenzo[c]quinolizine (XXIX); HCl salt, melting to a thick glass at 50-5°, mobile at 85-90°. XXIX (2.5 g.) boiled 5 hrs. in 50 ml. 5N HCl and the residue on evaporation at 14 mm. treated with saturated aqueous NaHCO₃ and Et₂O, the Et₂O extract dried and distilled gave a ketone, recrystn. from ligroine gave colorless rods, m. 96-7°; 2,4-dinitrophenylhydrazone, m. 153-5°. XXIII and XXIV differed markedly in ir absorption between 1450 and 700 cm.⁻¹ and had retention times of 16.0 and 14.8 min. at 150°. Accordingly the C-methylation decarboxylation product was XXIII, the methylated keto ester XXII and the Dieckmann cyclization of XVII gave the oxo ester XX, unsuitable for further use in a 9-azasteroid synthesis. In view of the high yield obtained in cyclization of the cyano ester XIV it was decided finally to prepare and cyclize the isomeric cyano ester XXVI (R = CH₂CH₂CO₂Et, R' = CH₂CN) (XXX). XVIII (18 g.) in 500 ml. dry MeOH saturated with NH₃ at 0° and autoclaved 40 hrs. at 100°, the solution evaporated and the gum triturated with ligroine yielded 85% XXVI (R = H R' = CH₂CONH₂) (XXXI), m. 98-103°, recrystd. from C₅H₆ to give a sample m. 103-4°; N-Bz derivative, m. 198-201° (alc.). XXXI (12.5 g.) and 5.93 g. NaCl in 60 ml. ClCH₂CH₂Cl stirred 15 min. with addition of 8.93 g. POC₁₃ in 10 ml. ClCH₂CH₂Cl, the mixture warmed and boiled with stirring 12 hrs., the cooled mixture treated with 8.0 g. NaOH in MeOH and shaken out twice with cold brine, the organic layer dried and distilled yielded 72% XXVI (R = H, R' = CH₂CN) (XXXII), b₀.06 124-7°; N-Bz derivative, m. 130° (alc.). XXXII (5.0 g.), 10.47 g. BrCH₂CH₂CO₂Et, 6.02 g. K₂CO₃, and 0.24 g. KI heated 6 hrs. at 140° with stirring, the crude product isolated as for XVII and heated 8 hrs. at 145° with 10.5 g. BrCH₂CH₂CO₂Et and 6 g. K₂CO₃, worked up again as for XVII to give 1.6 g. XXXII, b₀.0006 110-35° and 80% yield of XXX, b₀.0006 156-62°, m. 66° (ligroine). XXX (2.96 g.) in 50 ml. xylene added in 1 hr. with stirring to EtONa (from 0.275 g. Na) in 60 ml. boiling xylene and the boiling mixture stirred 1 hr., worked up as for the cyano ketone from XIV to give 82% light yellow solid, m. 132-8°, recrystd. from alc. to colorless rhombs of the cyano ketone (XXXIII), m. 135.0-7.5°; HCl salt, m. 133-41°.

(Me₂CO); phenylhydrazone, m. 166-7° (alc.). Since the yields are good throughout the synthesis the intermediate required for elaboration of ring D is available in quantity.

IT 5100-53-8, 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-8-nitro-4-oxo-, ethyl ester 5100-62-9, 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3-oxo-, ethyl ester, hydrochloride 5100-63-0, 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-2-methyl-3-oxo-, ethyl ester 5100-64-1, 3H-Benzo[c]quinolizine-3-one, 1,2,4,4a,5,6-hexahydro-2-methyl- 5100-70-9, 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-methyl-3-oxo-, ethyl ester 5100-71-0, 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-methyl-3-oxo-, ethyl ester, hydrochloride 5100-76-5, 1H-Benzo[c]quinolizine-4-carbonitrile, 2,3,4,4a,5,6-hexahydro-3-oxo-, hydrochloride 5100-77-6, 1H-Benzo[c]quinolizine-4-carbonitrile, 2,3,4,4a,5,6-hexahydro-3-oxo- 5161-92-2, 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3-oxo-, ethyl ester 5161-93-3, 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3,4a-dimethyl-4-oxo-, ethyl ester 5569-24-4, 3H-Benzo[c]quinolizine-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl- (preparation of)

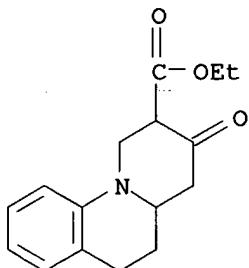
RN 5100-53-8 CAPLUS

CN 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-8-nitro-4-oxo-, ethyl ester (7CI, 8CI) (CA INDEX NAME)



RN 5100-62-9 CAPLUS

CN 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3-oxo-, ethyl ester, hydrochloride (7CI, 8CI) (CA INDEX NAME)

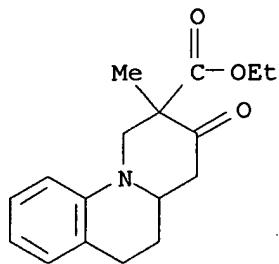


● HCl

09593173

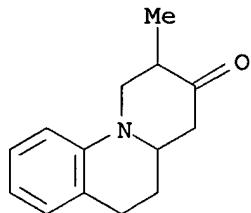
RN 5100-63-0 CAPLUS

CN 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-2-methyl-3-oxo-, ethyl ester (7CI, 8CI) (CA INDEX NAME)



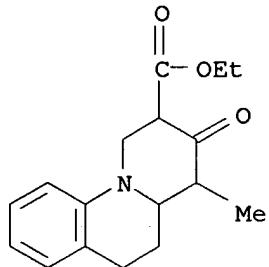
RN 5100-64-1 CAPLUS

CN 3H-Benzo[c]quinolizine-3-one, 1,2,4,4a,5,6-hexahydro-2-methyl- (7CI, 8CI) (CA INDEX NAME)



RN 5100-70-9 CAPLUS

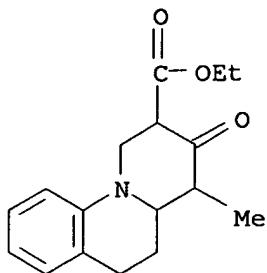
CN 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-methyl-3-oxo-, ethyl ester (7CI, 8CI) (CA INDEX NAME)



RN 5100-71-0 CAPLUS

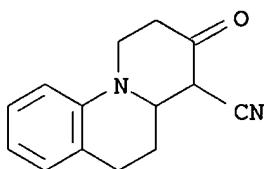
CN 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-4-methyl-3-oxo-, ethyl ester, hydrochloride (7CI, 8CI) (CA INDEX NAME)

09593173



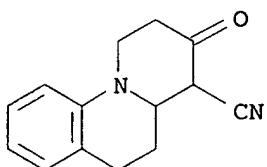
● HCl

RN 5100-76-5 CAPLUS
CN 1H-Benzo[c]quinolizine-4-carbonitrile, 2,3,4,4a,5,6-hexahydro-3-oxo-,
hydrochloride (7CI, 8CI) (CA INDEX NAME)



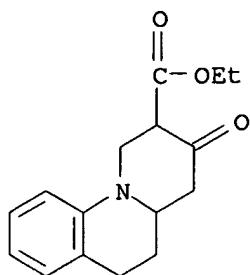
● HCl

RN 5100-77-6 CAPLUS
CN 1H-Benzo[c]quinolizine-4-carbonitrile, 2,3,4,4a,5,6-hexahydro-3-oxo- (7CI,
9CI) (CA INDEX NAME)



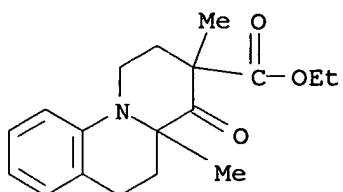
RN 5161-92-2 CAPLUS
CN 1H-Benzo[c]quinolizine-2-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3-oxo-,
ethyl ester (7CI, 8CI) (CA INDEX NAME)

09593173



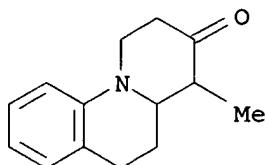
RN 5161-93-3 CAPLUS

CN 1H-Benzo[c]quinolizine-3-carboxylic acid, 2,3,4,4a,5,6-hexahydro-3,4a-dimethyl-4-oxo-, ethyl ester (7CI, 8CI) (CA INDEX NAME)



RN 5569-24-4 CAPLUS

CN 3H-Benzo[c]quinolizin-3-one, 1,2,4,4a,5,6-hexahydro-4-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



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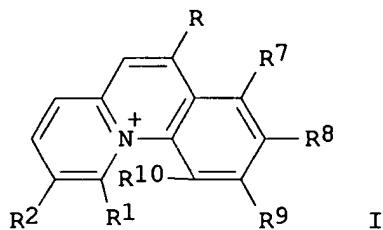
L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:971589 CAPLUS
DN **140:13093**
TI Use of benzo[c]quinolizinium derivatives for the treatment of diseases related to smooth muscle cell constriction
IN Becq, Frederic; Robert, Renaud; Pignoux Bulteau, Laurence; Rogier, Christian; Mettey Renault, Yvette; Vierfond, Jean Michel; Joffre, Michel; Marivingt, Mounir Cecile
PA Centre National de la Recherche Scientifique CNRS, Fr.
SO Fr. Demande, 59 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2840610	A1	20031212	FR 2002-6916	20020605
WO 2003104228	A1	20031218	WO 2003-FR1688	20030605
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1509520	A1	20050302	EP 2003-757110	20030605
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI FR 2002-6916	A	20020605		
WO 2003-FR1688	W	20030605		
OS MARPAT 140:13093				
AB The invention discloses the use of benzo[c]quinolizinium derivs. (preparation included) for the treatment of diseases related to smooth muscle cell constriction, e.g. arterial hypertension and asthma.				
RE.CNT 1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD			
	ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:112345 CAPLUS
DN **128:167362**
TI Preparation of benzo[c]quinolizinium salts and analogs as CFTR channel activators
IN Becq, Frederic; Mettey, Yvette; Vierfond, Jean-Michel; Verrier, Bernard; Gola, Maurice
PA Centre National de la Recherche Scientifique, Fr.; Becq, Frederic; Mettey, Yvette; Vierfond, Jean-Michel; Verrier, Bernard; Gola, Maurice
SO PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9805642	A1	19980212	WO 1997-FR1436	19970731
W: CA, JP, US				

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
 FR 2751969 A1 19980206 FR 1996-9721 19960801
 FR 2751969 B1 19981204
 CA 2258924 AA 19980212 CA 1997-2258924 19970731
 EP 937044 A1 19990825 EP 1997-936724 19970731
 EP 937044 B1 20020130
 R: CH, DE, FR, GB, IT, LI
 JP 2000515863 T2 20001128 JP 1998-507677 19970731
 US 6630482 B1 20031007 US 1999-230747 19990302
 PRAI FR 1996-9721 A 19960801
 WO 1997-FR1436 W 19970731
 OS MARPAT 128:167362
 GI



AB Title compds. (e.g., I.X; R1,R2 = H; R1R2 = atoms to complete a 6-membered aromatic ring; R7-R10 = H; 1 of R7-R10 may = halo; X = halide ion, ClO_4^- , etc.) were prepared. Thus, 2-ClC₆H₄CN was cyclocondensed with 2-methylpyridine to give I.Cl⁻. Data for biol. activity of title compds. were given.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:315340 CAPLUS
 DN 124:356152
 TI Method for making negative lith images or direct-positive images
 IN Dewanckele, Jean-Marie; Terrell, David; Andriessen, Hieronymus; Viaene, Kris
 PA Agfa-Gevaert Naamloze Vennootschap, Belg.
 SO Eur. Pat. Appl., 24 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 704751	A1	19960403	EP 1995-202566	19950922
R: BE, DE, FR, GB, NL JP 08220706	A2	19960830	JP 1995-271980	19950925

PRAI EP 1994-202772 A 19940927

OS MARPAT 124:356152

AB A method is provided for making neg. lithog. images or direct-pos. images by the steps of imagewise exposing a photog. light-sensitive silver halide material comprising a support, at least one internal latent image-type silver halide emulsion layer (in the case of direct-pos. materials) or surface latent image-type silver halide emulsion layer (in the case of lithog. materials) and development-nucleating amts. of a compound or a

precursor thereof, said compound having at least one quaternary heterocyclic ring system comprising at least three rings including a dihydropyridinium ring wherein carbon-nitrogen and carbon-carbon double bonds are also part of an aromatic ring, being one of said three rings, and wherein said double bonds and nitrogen atom in said dihydropyridinium ring are incorporated into annelated conjugated ring systems and developing said exposed photog. material in an alkaline surface developer, wherein said precursor is rapidly converted into a ring system as defined hereinbefore.

L13 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:2706 CAPLUS
 DN 140:53449
 TI Pharmaceutical compositions for the treatment of diseases related to neurotrophins
 IN **Guarna, Antonio; Cozzolino, Federico; Torcia, Maria; Garaci, Enrico**
 PA Italy
 SO PCT Int. Appl., 76 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004000324	A1	20031231	WO 2003-EP6471	20030618
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	IT 2002-FI107	A	20020619		
OS	MARPAT 140:53449				

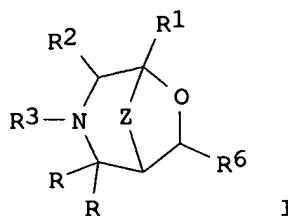
AB The invention refers to pharmaceutical preps. including as active compds. 3-aza-bicyclo[3.2.1]octane derivs. and/or their dimers acting as agonists of human neurotrophins. Therefore, such compds. are useful for treatment of diseases in which the neurotrophin functions are involved in defect, particularly of Nerve Growth Factor (NGF), such as neurodegenerative diseases of central nervous system (CNS), acquired immunodeficiency due to a reduced NGF bioavailability, or morbus conditions in which the stimulus of neoangiogenesis process is convenient.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:654699 CAPLUS
 DN 135:211044
 TI Preparation of 3-aza-6,8-dioxabicyclo[3.2.1]octanecarboxylates and analogs
 IN **Guarna, Antonio; Menchi, Gloria; Occhiato, Ernesto Giovanni; Machetti, Fabrizio; Scarpi, Dina**
 PA Universita Degli Studi di Firenze, Italy
 SO Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1130022	A1	20010905	EP 2000-104135	20000229
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2401693	AA	20010907	CA 2001-2401693	20010227
	WO 2001064686	A1	20010907	WO 2001-EP2185	20010227
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 US 2003176414 A1 20030918 US 2002-220556 20021101
 PRAI EP 2000-104135 A 20000229
 WO 2001-EP2185 W 20010227
 OS CASREACT 135:211044; MARPAT 135:211044
 GI



AB Title compds. [e.g., I; RR = O or each R = H; R1 = (un)substituted Ph; R2 = H, Me, CH2Ph; R3 = (un)substituted phenyl(methyl), CH(CO2H)CH2Ph, allyl, etc.; R6 = H, Me, CO2H, CH2OH; Z = O or NH] were prepared. Thus, PhCOCH2NHCH2Ph was N-acylated by 1,4-dioxane-2,3-dicarboxylic acid monomethyl ester and the product cyclized to give I (RR = O, R1 = R3 = CH2Ph, R2 = H, R6 = CO2Me, Z = O). The method is suitable for solid phase synthesis and the preparation of combinatorial libraries.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:117047 CAPLUS
 DN 132:151692
 TI Preparation of (1H)-benzo[c]quinolizin-3-ones for use as 5α-reductase inhibitors
 IN Guarna, Antonio; Serio, Mario; Occhiato, Ernesto Giovanni
 PA Applied Research Systems Ars Holding N.V., Neth. Antilles
 SO PCT Int. Appl., 21 pp.
 CODEN: PIXXD2

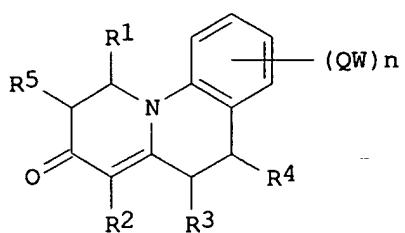
DT Patent
 LA English

FAN.CNT 1

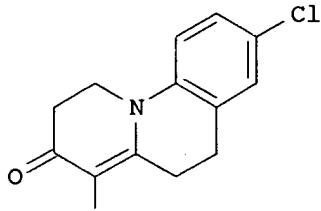
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000008019	A1	20000217	WO 1999-EP5277	19990723
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2338498	AA	20000217	CA 1999-2338498	19990723

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AU 9963123	A1 20000228	AU 1999-63123	19990723
AU 751873	B2 20020829		
EP 1102765	A1 20010530	EP 1999-941269	19990723
EP 1102765	B1 20030917		
R: AT, BE, CH, IE, SI, LT, LV, FI, RO	DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,		
TR 200100286	T2 20010723	TR 2001-200100286	19990723
BR 9912870	A 20011016	BR 1999-12870	19990723
EE 200100060	A 20020617	EE 2001-60	19990723
JP 2002522435	T2 20020723	JP 2000-563652	19990723
NZ 509243	A 20021126	NZ 1999-509243	19990723
CZ 291648	B6 20030416	CZ 2001-434	19990723
AT 250057	E 20031015	AT 1999-941269	19990723
CN 1128148	B 20031119	CN 1999-809204	19990723
PT 1102765	T 20031231	PT 1999-941269	19990723
ES 2203169	T3 20040401	ES 1999-941269	19990723
ZA 2001000365	A 20010726	ZA 2001-365	20010112
BG 105198	A 20011231	BG 2001-105198	20010130
NO 2001000559	A 20010201	NO 2001-559	20010201
US 6723850	B1 20040420	US 2001-743373	20010525
HK 1037368	A1 20040618	HK 2001-108153	20011120
PRAI EP 1998-114524	A 19980803		
OS WO 1999-EP5277	W 19990723		
GI			



I



II

AB Benzo[c]quinolizin-3-ones I [R, R1, R2, R3, R4, R5 = H, CN, N3, alkyl alkenyl, alkynyl, cycloalkyl, aryl, heterocyclyl, halogen, amino, alkyloxy, aryloxy, carboxy, carboxamido; Q = bond, CO, alkyl, alkenyl, alkynyl, cycloalkyl, CONR, NR; W = H, CF₃, CN, alkyl alkenyl, alkynyl, cycloalkyl, aryl, heterocyclyl, halogen, amino, alkyloxy, aryloxy, acyl, carboxy, carboxamido, etc.] were prepared for use as 5 α -reductase inhibitors (no data). Thus, benzo[c]quinolizin-3-one II was prepared in a two step sequence which comprised N-alkylation of 6-chloro-3,4-dihydro-2(1H)-quinolinethione with Et vinyl ketone using K₂CO₃ and 18-crown-6 in THF and intramol. cyclocondensation of the resulting N-(3-oxopentyl)quinolinethione using Me₂SO₄ and DBU in toluene.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:50074 CAPLUS

DN 132:93206

TI Preparation of aminoalcohols and aminoketones as CNS active agents

IN Guarna, Antonio; Pupi, Alberto; Berti, Giovanna; Bottoncetti, Anna; Menchi, Gloria

PA Universita degli Studi di Firenze, Italy

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 972764	A1	20000119	EP 1999-113902	19990716
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	IT 1304874	B1	20010405	IT 1998-FI171	19980717
PRAI	IT 1998-FI171	A	19980717		
OS	MARPAT 132:93206				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; R₁, R₂ = H, alkyl, alkenyl, etc.; R₁ and R₂ can be linked together to form an imide or amide cyclic system (Cy) selected from II, III, IV, etc.; A = O, OR, NR₃R₄ (wherein R, R₃, R₄ = H, alkyl, alkenyl, etc.); Q = a single bond, alkyl, alkenyl, etc.; W = H, alkyl, alkenyl, etc.; n = 1-4; m = 0-1; provided that at least one of the substituent W is always an halogen atom; when A = OR and R = aryl, R₁ and R₂ cannot be H and C₁₋₄ alkyl; when m = 1, Q = single bond and n = 1 or 2, W cannot be Ph] which interact with CNS receptors and can be used as drugs for the treatment of CNS diseases or, if opportunely labeled, with radioactive isotopes, as radioligands or tracers to study CNS receptors in vitro and in vivo, were prepared. Thus, reacting benzaldehyde with 3-(2-bromo-4-fluorophenyl)-3-hydroxypropylamine in the presence of NaBH₃CN afforded V which showed an affinity for both S₂ and D₂ receptors with IC₅₀ of 18.7 μ M in the S₂ assay and IC₅₀ of 34 μ M in the D₂ assay.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L14 1 WO9933828/PN

=> d bib abs hitstr

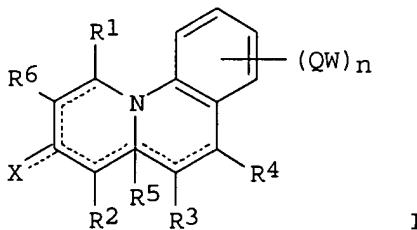
L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:542448 CAPLUS
DN 127:220585
TI Benzo[c]quinolizine derivatives, their preparation and use as
5α-reductases inhibitors
IN Guarna, Antonio; Serio, Mario
PA Applied Research Systems ARS Holding N.V., Neth. Antilles; Guarna,
Antonio; Serio, Mario
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9729107	A1	19970814	WO 1997-EP552	19970207
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2245758	AA	19970814	CA 1997-2245758	19970207
	AU 9717672	A1	19970828	AU 1997-17672	19970207
	AU 711886	B2	19991021		
	EP 880520	A1	19981202	EP 1997-903230	19970207
	EP 880520	B1	20030416		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EE 9800233	A	19981215	EE 1998-233	19970207
	EE 4058	B1	20030616		
	CN 1210536	A	19990310	CN 1997-192097	19970207
	CN 1116296	B	20030730		
	JP 20000504680	T2	20000418	JP 1997-528158	19970207
	SK 283299	B6	20030502	SK 1998-1044	19970207
	AT 237614	E	20030515	AT 1997-903230	19970207
	PT 880520	T	20030731	PT 1997-903230	19970207
	ES 2192263	T3	20031001	ES 1997-903230	19970207
	PL 187618	B1	20040831	PL 1997-328123	19970207
	EP 926148	A1	19990630	EP 1997-122733	19971223
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 9803444	A	19980724	NO 1998-3444	19980724
	US 6303622	B1	20011016	US 1998-117583	19980729
	CA 2315055	AA	19990708	CA 1998-2315055	19981221
	WO 9933828	A1	19990708	WO 1998-EP8582	19981221
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,				

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CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9924194	A1	19990719	AU 1999-24194	19981221
AU 744105	B2	20020214		
BR 9813836	A	20001010	BR 1998-13836	19981221
EP 1066284	A1	20010110	EP 1998-966711	19981221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EE 200000387	A	20011217	EE 2000-200000387	19981221
JP 2001527074	T2	20011225	JP 2000-526509	19981221
ZA 9811762	A	19990623	ZA 1998-11762	19981222
HK 1018783	A1	20031128	HK 1999-103821	19990903
NO 2000003199	A	20000823	NO 2000-3199	20000620
HK 1033128	A1	20040930	HK 2001-103695	20010529
US 2001044542	A1	20011122	US 2001-888952	20010625
US 6555549	B2	20030429		
US 2001047098	A1	20011129	US 2001-891088	20010625
US 6552034	B2	20030422		
PRAI IT 1996-FI19	A	19960209		
WO 1997-EP552	W	19970207		
EP 1997-122733	A	19971223		
US 1998-117583	A1	19980729		
WO 1998-EP8582	W	19981221		
OS MARPAT 127:220585				
GI				



AB The benzo[c]quinolizine derivs. I (R1-R4, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heterocycle, halo, amino azide, alkoxy carbonyl, etc.; R5 = H, alkyl, alkoxy carbonyl, cyano, aryl, heterocycle; X = O, acyl, alkoxy carbonyl, NO₂, carbamoyl; Q = bond, alkyl, alkenyl, alkynyl, amino, etc., W = H, alkyl, alkenyl, alkynyl, aryl, aryloxy, amino, halo, etc.) were prepared as 5 α -reductases inhibitors (no data). Thus, N-(tert-butoxycarbonyl)-2-ethoxy-1,2,3,4-tetrahydroquinoline was cyclized with 2-(trimethylsilyloxy)-1,3-butadiene to give 1,2,4,4a,5,6-hexahydro-(11H)-benzo[c]quinolizin-3-one.